

SECOND SUPPLEMENTAL AMENDMENT
UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 09/783,135

REMARKS

Supplemental to the remarks set out in the Amendment filed April 16, 2004, and the Supplemental Amendment filed April 26, 2004, Applicant submits the following in traversal of the Examiner's rejection.

In the Examiner's rejection of claims 2-16, the Examiner states that on pages 6-7 of the Final Office Action:

It appears that it is the intention of the Invention to transform a statistical distribution into multidimensional statistical distribution (joint density function) from which the joint density functions related to the dimensionality can be identified. Integrating across the space of the joint density function, one can arrive at the marginal density function and hence one begins to develop the grid. This process is not straightforward and would require extensive experimentation to replicate the invention.

Applicant submits that the specification on page 8, line 13 - page 13 line 22, shows how a probability distribution function is obtained. Then, as shown on page 14, lines 1-13, the obtained probability distribution function, $\hat{p}(x)$, is integrated to estimate the claimed marginal distribution, as shown by the integration of $\hat{p}(x)$ from $c[0]$ to $c[2^b]$ in Equation 12. The marginal distribution is divided by the number of grids, or squares, 2^b to segment the probability distribution into 2^b grids (Eqn. 12, claim 14), wherein the probability of disposing a feature vector data in each grid is uniform. *See id.* In other words, the result of Equation 12 provides the probability of disposing the feature vector data in each grid, or square, wherein the grids each have the same probability of disposing the feature vector data. Moreover, the explanations

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regarding the Intermediate Value Theorem previously submitted provide additional explanation regarding how Equation 12 is derived.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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*Granted limited recognition under 37 C.F.R. § 10.9(b), as shown in a copy of the same filed on April 16, 2004, at the U.S.P.T.O.

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